

In the Claims

Please cancel claims 1-30 without prejudice. Please add and consider claims 31-126 as follows.

31. (New) An antimicrobial phosphate ester conveyor lubricant comprising alkyl alkoxyated phosphate ester, linear quaternary ammonium antimicrobial agent, and water; wherein phosphate ester and the linear quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

32. (New) The lubricant of claim 31, wherein the ratio of phosphate ester to the linear quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

33. (New) The lubricant of claim 32, wherein the ratio is about 2.5:1 and the mixture retains clarity when the mixture comprises 50% lubricant and 50% beverage.

34. (New) The lubricant of claim 32, wherein the ratio is about 1.5:1 and the mixture retains clarity when the mixture comprises more than 50% lubricant and less than 50% beverage.

35. (New) The lubricant of claim 32, wherein the ratio is about 16:1 and the mixture retains clarity when the mixture comprises less than 50% lubricant and more than 50% beverage.

36. (New) The lubricant of claim 31, wherein the total concentration of phosphate ester comprises 7-30% by weight of the lubricant and the linear quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

37. (New) The lubricant of claim 31, wherein the ratio is 1.5:1 to 10:1.

38. (New) The lubricant of claim 31, wherein the ratio is 2:1 to 10:1.

39. (New) The lubricant of claim 31, wherein the ratio is 2:1 to 8:1.
40. (New) The lubricant of claim 31, wherein the pH of the lubricant is less than 8.5.
41. (New) The lubricant of claim 31, wherein the lubricant is formulated to provide increased antimicrobial activity of the linear quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.
42. (New) The lubricant of claim 31, further comprising alkali metal hydroxide or ammonium salt.
43. (New) The lubricant of claim 42, comprising sodium hydroxide.
44. (New) The lubricant of claim 31, further comprising chelating agent for divalent cations.
45. (New) The lubricant of claim 44, wherein the chelating agent comprises an aminoacetic acid chelating agent.
46. (New) The lubricant of claim 31, further comprising alcohol alkoxylate.
47. (New) The lubricant of claim 46, wherein the alcohol alkoxylate comprises alcohol ethoxylate.
48. (New) The lubricant of claim 31, further comprising aryl alkoxylated phosphate ester.
49. (New) The lubricant of claim 48, wherein the aryl alkoxylated phosphate ester comprises a phenol phosphate ester wherein the phenol group is not substituted with alkyl groups.

50. (New) The lubricant of claim 48, comprising alkyl alkoxyated phosphate ester comprising an alkyl group of 10 to 12 carbon atoms and an alkoxy moiety of 5 ethylene oxide units, phenol ethoxylated phosphate ester, didecyl dimethyl ammonium chloride, and water; and further comprising EDTA, alkalating agent, and C₁₂₋₁₅ linear alcohol.

51. (New) An antimicrobial phosphate ester conveyor lubricant comprising alkyl alkoxyated phosphate ester, aryl alkoxyated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein phosphate ester and the quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

52. (New) The lubricant of claim 51, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

53. (New) The lubricant of claim 31, wherein the quaternary ammonium antimicrobial agent comprises a linear quaternary ammonium antimicrobial agent.

54. (New) An antimicrobial phosphate ester conveyor lubricant comprising alkyl alkoxyated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein phosphate ester and the quaternary ammonium antimicrobial agent are present in a weight ratio of about 8:1 to about 30:1.

55. (New) The lubricant of claim 54, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

56. (New) The lubricant of claim 55, wherein the ratio is about 16:1 and the mixture retains clarity when the mixture comprises less than 50% lubricant and more than 50% beverage.

57. (New) The lubricant of claim 54, wherein the total concentration of phosphate ester comprises 7-30% by weight of the lubricant and the quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

58. (New) The lubricant of claim 54, further comprising alcohol alkoxylate.

59. (New) The lubricant of claim 58, wherein the alcohol alkoxylate comprises alcohol ethoxylate.

60. (New) An antimicrobial phosphate ester conveyor lubricant comprising alkyl alkoxylated phosphate ester, linear quaternary ammonium antimicrobial agent, and water; wherein the antimicrobial phosphate ester conveyor lubricant is substantially free of fatty acid.

61. (New) The lubricant of claim 60, wherein phosphate ester and the linear quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

62. (New) The lubricant of claim 60, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

63. (New) The lubricant of claim 60, wherein the total concentration phosphate ester comprises 7-30% by weight of the lubricant and the linear quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

64. (New) The lubricant of claim 60, wherein the pH of the lubricant is less than 8.5.

65. (New) The lubricant of claim 60, wherein the lubricant is formulated to provide increased antimicrobial activity of the linear quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.

66. (New) The lubricant of claim 60, further comprising sodium hydroxide.

67. (New) The lubricant of claim 60, further comprising a chelating agent for divalent cations.

68. (New) The lubricant of claim 67, wherein the chelating agent comprises an aminoacetic acid chelating agent.

69. (New) The lubricant of claim 60, further comprising alcohol alkoxylate.

70. (New) The lubricant of claim 69, wherein the alcohol alkoxylate comprises alcohol ethoxylate.

71. (New) The lubricant of claim 60, further comprising aryl alkoxylated phosphate ester.

72. (New) The lubricant of claim 71, wherein the aryl alkoxylated phosphate ester comprises a phenol phosphate ester wherein the phenol group is not substituted with alkyl groups.

73. (New) The lubricant of claim 71, comprising alkyl alkoxylated phosphate ester comprising an alkyl group of 10 to 12 carbon atoms and an alkoxy moiety of 5 ethylene oxide units, phenol ethoxylated phosphate ester, didecyl dimethyl ammonium chloride, and water; and further comprising EDTA, alkalating agent, and C₁₂₋₁₅ linear alcohol.

74. (New) An antimicrobial phosphate ester conveyor lubricant comprising alkyl alkoxylated phosphate ester, aryl alkoxylated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein the antimicrobial phosphate ester conveyor lubricant is substantially free of fatty

acid.

Not in examples but does this constitute new matter because it is not explicitly recited in the spec.

75. (New) The lubricant of claim 74, wherein the quaternary ammonium antimicrobial agent comprises a linear quaternary ammonium antimicrobial agent.

76. (New) The lubricant of claim 74, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

77. (New) The lubricant of claim 74, wherein the pH of the lubricant is less than 8.5.

78. (New) The lubricant of claim 74, wherein the lubricant is formulated to provide increased antimicrobial activity of the quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.

79. (New) A process for lubricating a conveyor used to transport containers, the process comprising applying a phosphate ester antimicrobial lubricant composition to the conveying surface of a conveyor and moving containers on the conveyor;

the lubricant comprising alkyl alkoxylated phosphate ester, linear quaternary ammonium antimicrobial agent, and water;

wherein phosphate ester and the quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

80. (New) The process of claim 79, wherein the ratio of phosphate ester to the linear quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

81. (New) The process of claim 80, wherein the ratio is about 2.5:1 and the mixture retains clarity when the mixture comprises 50% lubricant and 50% beverage.

82. (New) The process of claim 80, wherein the ratio is about 1.5:1 and the mixture retains clarity when the mixture comprises more than 50% lubricant and less than 50% beverage.

83. (New) The process of claim 80, wherein the ratio is about 16:1 and the mixture retains clarity when the mixture comprises less than 50% lubricant and more than 50% beverage.

84. (New) The process of claim 79, wherein the total concentration of phosphate ester comprises 7-30% by weight of the lubricant and the linear quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

85. (New) The process of claim 79, wherein the ratio is 1.5:1 to 10:1.

86. (New) The process of claim 79, wherein the ratio is 2:1 to 10:1.

87. (New) The process of claim 79, wherein the ratio is 2:1 to 8:1.

88. (New) The process of claim 79, wherein the pH of the lubricant is less than 8.5.

89. (New) The process of claim 79, wherein the lubricant is formulated to provide increased antimicrobial activity of the linear quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.

90. (New) The process of claim 79, further comprising alkali metal hydroxide or ammonium salt.

91. (New) The process of claim 90, comprising sodium hydroxide.

92. (New) The process of claim 79, further comprising chelating agent for divalent cations.

93. (New) The process of claim 92, wherein the chelating agent comprises an aminoacetic acid chelating agent.

94. (New) The process of claim 79, further comprising alcohol alkoxylate.

95. (New) The process of claim 94, wherein the alcohol alkoxylate comprises alcohol ethoxylate.

96. (New) The process of claim 79, further comprising aryl alkoxylated phosphate ester.

97. (New) The process of claim 96, wherein the aryl alkoxylated phosphate ester comprises a phenol phosphate ester wherein the phenol group is not substituted with alkyl groups.

98. (New) The process of claim 96, comprising alkyl alkoxylated phosphate ester comprising an alkyl group of 10 to 12 carbon atoms and an alkoxy moiety of 5 ethylene oxide units, phenol ethoxylated phosphate ester, didecyl dimethyl ammonium chloride, and water; and further comprising EDTA, alkalating agent, and C₁₂₋₁₅ linear alcohol.

99. (New) A process for lubricating a conveyor used to transport containers, the process comprising applying a phosphate ester antimicrobial lubricant composition to the conveying surface of a conveyor and moving containers on the conveyor;

the lubricant comprising alkyl alkoxylated phosphate ester, aryl alkoxylated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein phosphate ester and the quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

100. (New) The process of claim 99, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

101. (New) The process of claim 99, wherein the quaternary ammonium antimicrobial agent comprises a linear quaternary ammonium antimicrobial agent.

102. (New) A process for lubricating a conveyor used to transport containers, the process comprising applying a phosphate ester antimicrobial lubricant composition to the conveying surface of a conveyor and moving containers on the conveyor;

the lubricant comprising alkyl alkoxylated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein phosphate ester and the quaternary ammonium antimicrobial agent are present in a weight ratio of about 8:1 to about 30:1.

103. (New) The process of claim 102, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

104. (New) The process of claim 103, wherein the ratio is about 16:1 and the mixture retains clarity when the mixture comprises less than 50% lubricant and more than 50% beverage.

105. (New) The process of claim 102, wherein the total concentration of phosphate ester comprises 7-30% by weight of the lubricant and the quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

106. (New) The process of claim 102, further comprising alcohol alkoxylate.

107. (New) The process of claim 106, wherein the alcohol alkoxylate comprises alcohol ethoxylate.

108. (New) A process for lubricating a conveyor used to transport containers, the process comprising applying a phosphate ester antimicrobial lubricant composition to the conveying surface of a conveyor and moving containers on the conveyor;

the lubricant comprising alkyl alkoxylated phosphate ester, linear quaternary ammonium antimicrobial agent, and water;

wherein the antimicrobial phosphate ester conveyor lubricant is substantially free of fatty acid.

109. (New) The process of claim 108, wherein phosphate ester and the linear quaternary ammonium antimicrobial agent are present in a weight ratio of about 1.3:1 to about 30:1.

110. (New) The process of claim 108, wherein the ratio of phosphate ester to the linear quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

111. (New) The process of claim 108, wherein the total concentration phosphate ester comprises 7-30% by weight of the lubricant and the linear quaternary ammonium antimicrobial agent comprises 1-5% by weight of the lubricant.

112. (New) The process of claim 108, wherein the pH of the lubricant is less than 8.5.

113. (New) The process of claim 108, wherein the lubricant is formulated to provide increased antimicrobial activity of the linear quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.

114. (New) The process of claim 108, further comprising sodium hydroxide.
115. (New) The process of claim 108, further comprising a chelating agent for divalent cations.
116. (New) The process of claim 115, wherein the chelating agent comprises an aminoacetic acid chelating agent.
117. (New) The process of claim 108, further comprising alcohol alkoxylate.
118. (New) The process of claim 117, wherein the alcohol alkoxylate comprises alcohol ethoxylate.
119. (New) The process of claim 108, further comprising aryl alkoxylated phosphate ester.
120. (New) The process of claim 119, wherein the aryl alkoxylated phosphate ester comprises a phenol phosphate ester wherein the phenol group is not substituted with alkyl groups.
121. (New) The process of claim 119, comprising alkyl alkoxylated phosphate ester comprising an alkyl group of 10 to 12 carbon atoms and an alkoxy moiety of 5 ethylene oxide units, phenol ethoxylated phosphate ester, didecyl dimethyl ammonium chloride, and water; and further comprising EDTA, alkalating agent, and C₁₂₋₁₅ linear alcohol.
122. (New) A process for lubricating a conveyor used to transport containers, the process comprising applying a phosphate ester antimicrobial lubricant composition to the conveying surface of a conveyor and moving containers on the conveyor;
the lubricant comprising alkyl alkoxylated phosphate ester, aryl alkoxylated phosphate ester, quaternary ammonium antimicrobial agent, and water;

wherein the antimicrobial phosphate ester conveyor lubricant is substantially free of fatty acid.

123. (New) The lubricant of claim 122, wherein the quaternary ammonium antimicrobial agent comprises a linear quaternary ammonium antimicrobial agent.

124. (New) The lubricant of claim 122, wherein the ratio of phosphate ester to the quaternary ammonium antimicrobial agent is effective to retain clarity of a mixture of the lubricant and a beverage.

125. (New) The lubricant of claim 122, wherein the pH of the lubricant is less than 8.5.

126. (New) The lubricant of claim 122, wherein the lubricant is formulated to provide increased antimicrobial activity of the quaternary ammonium antimicrobial agent when the lubricant is mixed with a beverage having a pH lower than the lubricant.

REMARKS

This proposed draft Amendment is intended only for discussion with the Examiner during the personal interview of August 10, 2000. It is not intended for entry into the file history of this application.